



## Installing MacBook Core Duo Lower Case

### Tools used in this guide

- [Coin](#) (1)
- [Phillips #00 Screwdriver](#) (1)
- [Spudger](#) (1)

### Parts relevant to this guide

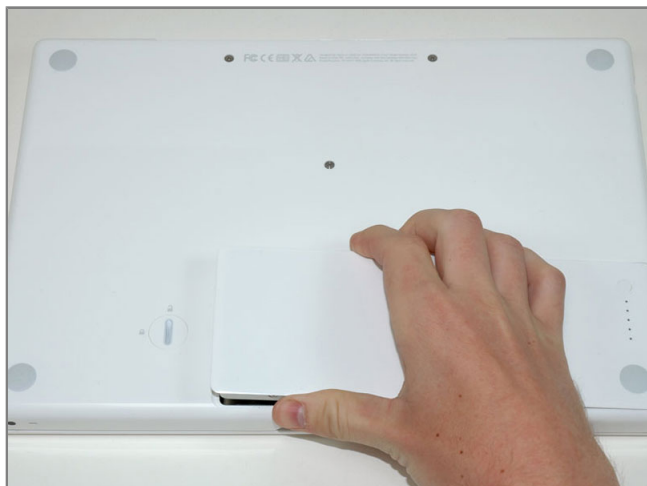
- [MacBook Lower Case](#) (1)

Replacing the plastic bottom case.



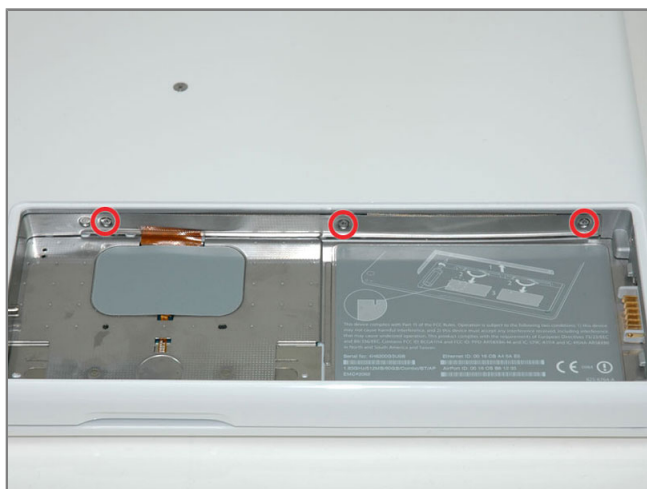
## Step 1 - Battery

- Use a coin to rotate the battery-locking screw 90 degrees clockwise.



## Step 2

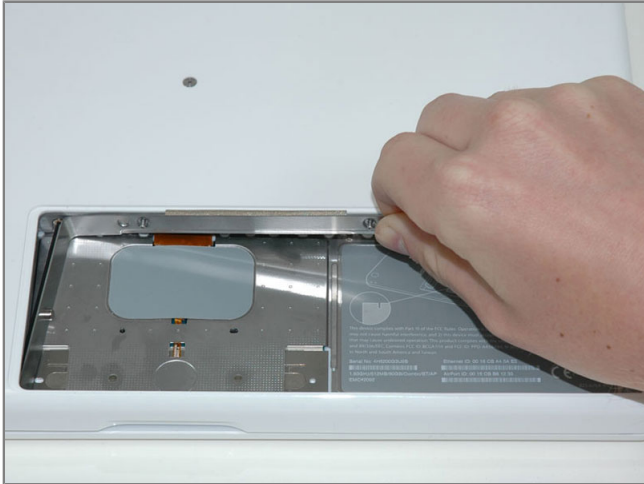
- Lift the battery out of the computer.



## Step 3 - Memory Cover

- Remove the three evenly-spaced Phillips screws from along the rear wall of the battery compartment.
- The screws are captive to the metal memory cover.





## Step 4

- Lift up on L-shaped memory cover, slide it to the right, and lift it out of the computer.



## Step 5 - Upper Case

- Remove the following 3 screws:
  - One 11 mm Phillips #00 in the middle of the case.
  - Two 14.5 mm Phillips #00.
- If the screws stick in the case, you can use a magnetized screwdriver to draw them out.
- The shorter of the three screws goes in the middle.



## Step 6

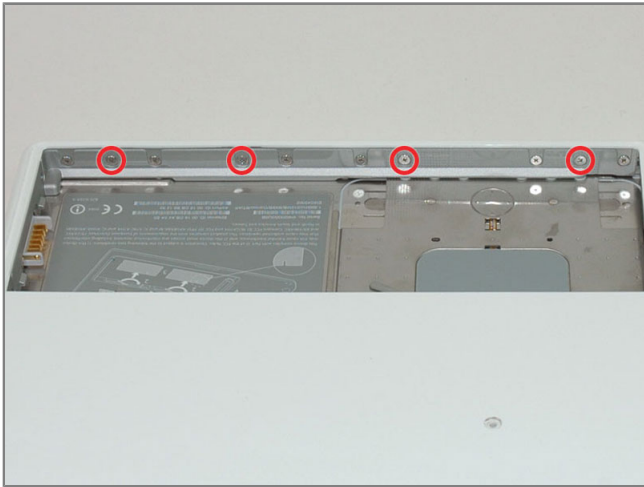
- Remove the following 3 screws from the rear wall of the battery compartment:
  - Two 3 mm Phillips #000.
  - One 4 mm Phillips #000 on the right side.
- When reinstalling these screws, it may be helpful to push down on the lower case to line up the screw holes.





### Step 7

- Remove the two Phillips #00 screws from either side of the right wall of the battery compartment (not the ones closest to the battery connector).



### Step 8

- Remove the four indicated Phillips #00 screws from the front wall of the battery compartment. When working from the left, remove the 2nd, 4th, 7th and 9th screw.



### Step 9

- Remove the following 4 screws from the back of the computer:
  - Two 7 mm Philips on the far sides.
  - Two 10.5 mm Phillips toward the center.





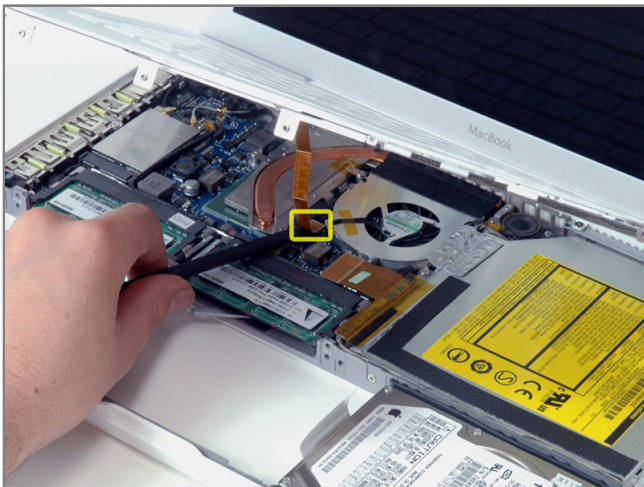
### Step 10

- Remove the two Phillips #00 screws from the optical side of the computer.
- It is not necessary to remove the similar screws on the other side of the computer.



### Step 11

- Starting near the display and working around to the front of the computer, pry up on the upper case. It is held with clips on the right above the optical drive. These will release with some firm lifting pressure.
- There's a trackpad and keyboard ribbon connecting the upper case to the logic board, so don't pull the upper case off entirely just yet.



### Step 12

- While holding up the upper case, use a spudger to pry up the orange trackpad and keyboard cable from its connector.



### Step 13 - Optical Drive

- Grasp the white plastic tab attached to the hard drive and pull it to the left, removing the hard drive from the computer.



### Step 14

- Remove the two Phillips screws from the front edge of the optical drive.



### Step 15

- Disconnect the orange optical drive ribbon cable from the logic board.



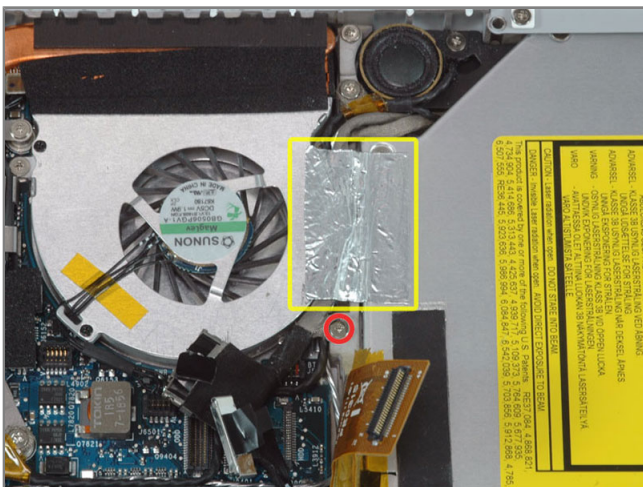
## Step 16

- Disconnect the newly-revealed display data cable. If there is no pull-tab on the top of the connector, it may be helpful to use a spudger to disconnect this connector.



## Step 17

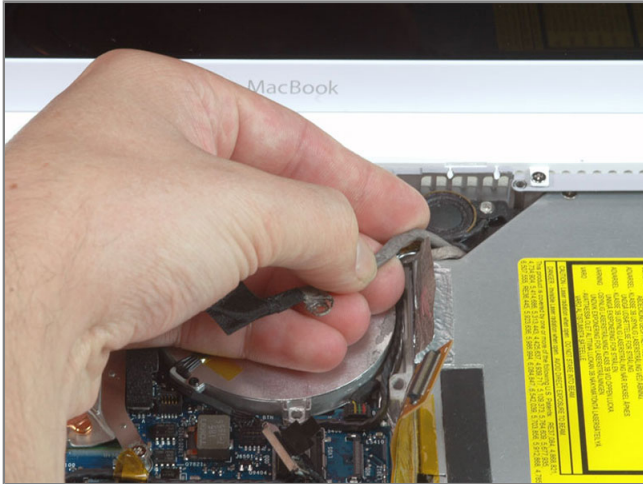
- Disconnect the (once again) newly-revealed hard drive cable.



## Step 18

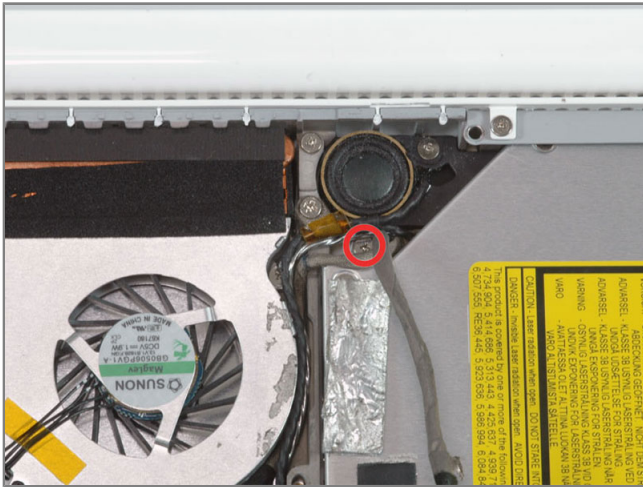
- Peel up the foil tape between the fan and the optical drive.
- Remove the Phillips screw securing the display data cable to the metal framework.





## Step 19

- Pull up the display data cable from along the edge of the optical drive to reveal a silver Phillips screw.



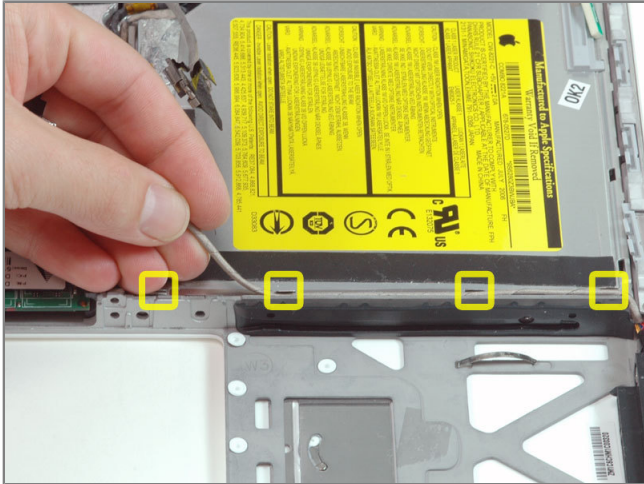
## Step 20

- Remove the Phillips screw securing the optical drive.
- The Bluetooth cable may be covering the screw; carefully push it aside before removing the screw.



## Step 21

- Lift the Bluetooth antenna board from the right side of the optical drive.



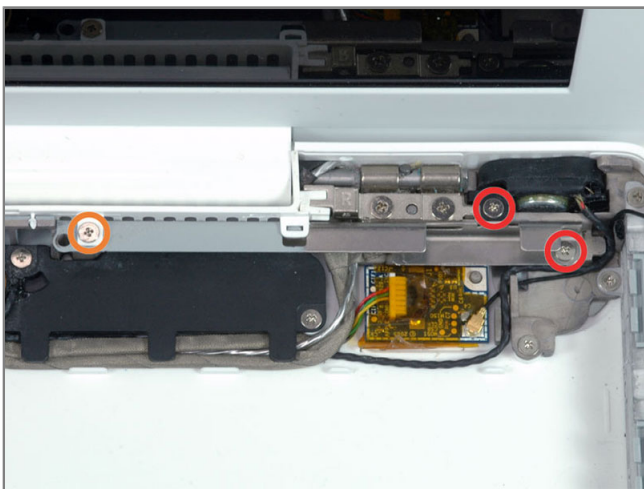
### Step 22

- Deroute the hard drive cable from along the front of the optical drive.



### Step 23

- Lift the front edge of the optical drive and slide it up and out of the computer.



### Step 24 - C-Channel

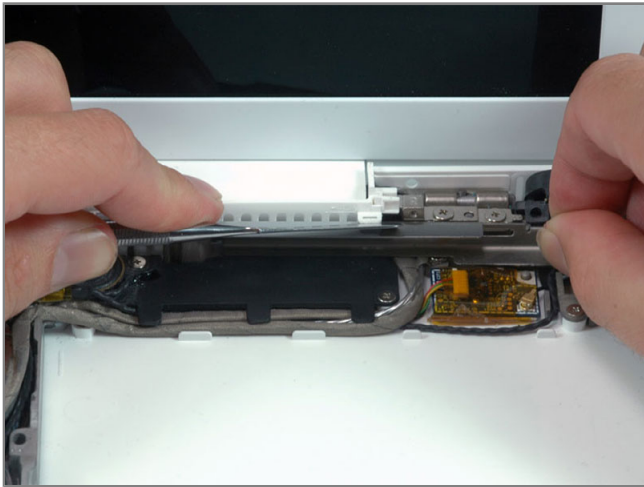
- Remove the following 3 screws:
  - Two 3 mm Phillips near the right speaker.
  - One 6 mm Phillips threaded through a hole in a plastic finger above the subwoofer.
- Be careful not to over-tighten the screw above the subwoofer too tight or the plastic could crack.





### Step 25

- Lift the right speaker out of its housing and set it to the side.



### Step 26

- Using a spudger, gently pry up the white plastic slot and slide the metal c-channel to the right and away from the display.

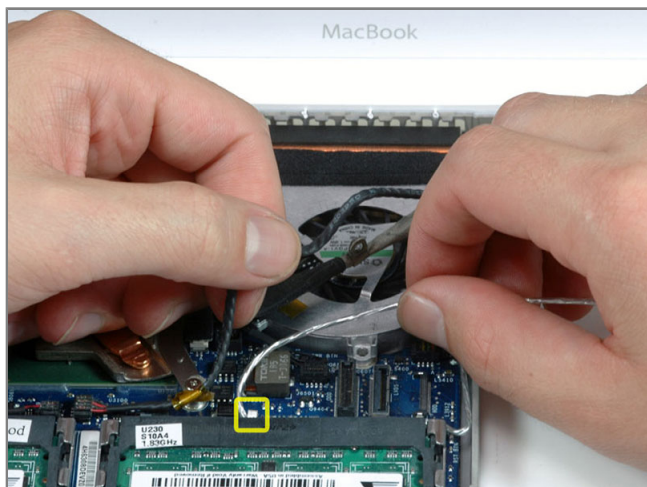


### Step 27 - Display

- Use a spudger to carefully disconnect the microphone cable from the logic board. You'll want to work from side to side, and slowly wiggle the connector out of its socket.
- Pulling on this connector vertically will break the socket off the logic board. This connector should be removed horizontally by gently pulling the microphone cable toward the screen while working a spudger between the connector and the socket.

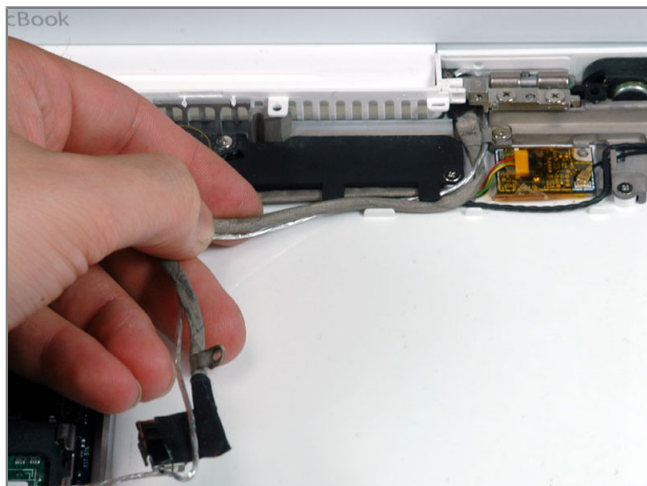






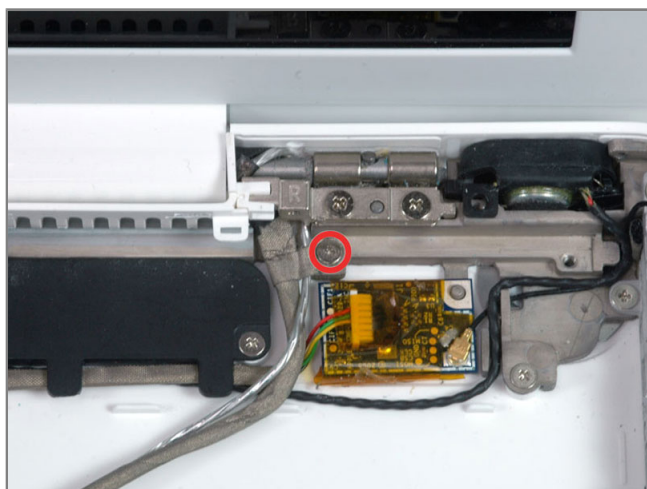
### Step 28

- Lift up on the black right speaker cable with one hand, and deroute the silver microphone cable from the silver metal clip just above the right RAM slot.



### Step 29

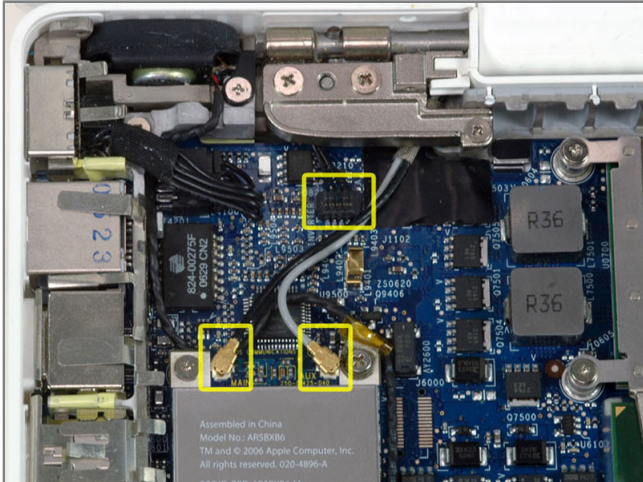
- Deroute the silver microphone cable and gray display data cable from the tabs at the bottom of the subwoofer.



### Step 30

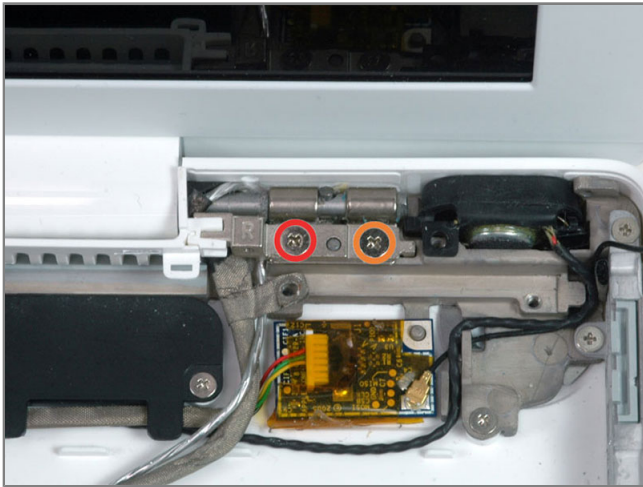
- Remove the single Phillips screw securing the ground loop in the display data cable located just above the Bluetooth board.





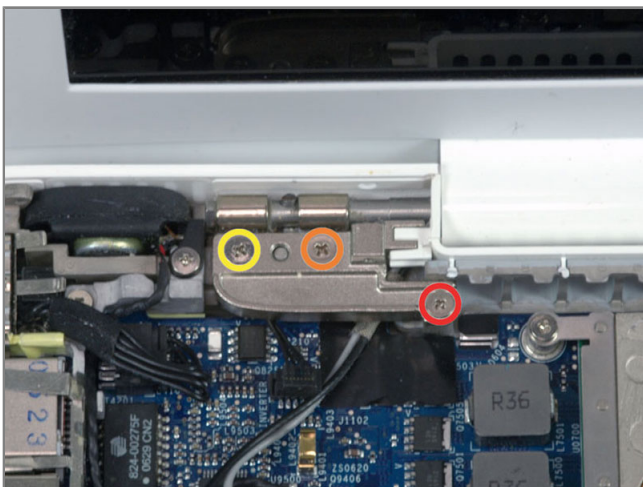
## Step 31

- Disconnect the two antenna cables from the Airport card, and the black inverter cable from the logic board. (Pull vertically on all three.)



## Step 32

- Remove the following 2 screws from the right hinge mount:
  - One 6 mm Phillips on the left side of the hinge mount.
  - One 10 mm Phillips on the right side of the hinge mount.
- Lift the right hinge mount out of the computer.



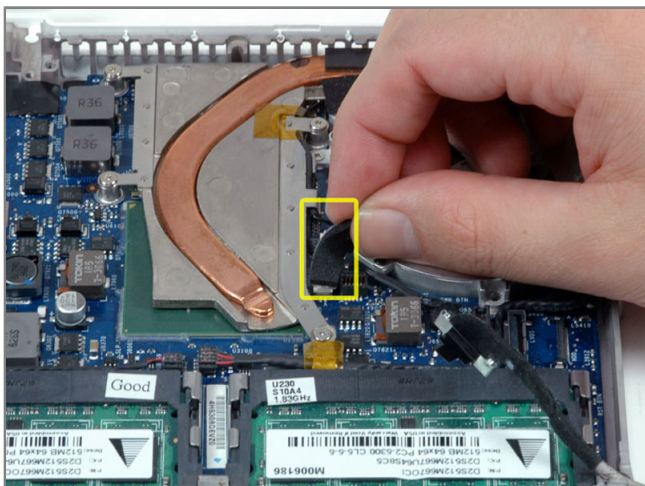
## Step 33

- Hold the display with one hand while removing the screws from the left hinge mount.
- Remove the following 3 screws from the left hinge mount:
  - One 6 mm smaller diameter Phillips from the right side.
  - One 6 mm larger diameter Phillips from the middle.
  - One 10 mm Phillips from the left side.
- Lift the left hinge mount out of the computer.



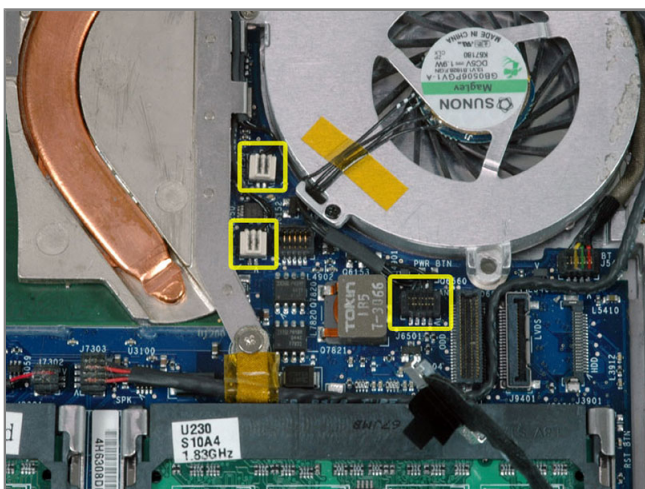
### Step 34

- Grasp the display assembly on either side, and lift it up and out of the computer.



### Step 35 - Lower Case

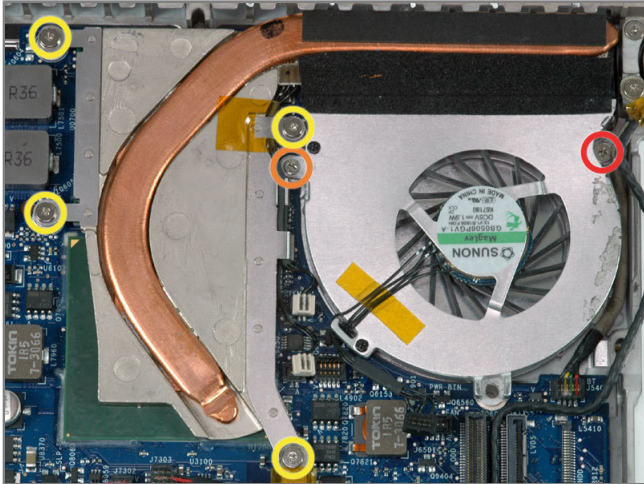
- Peel up the small black rubber cover from the right side of the heat sink.



### Step 36

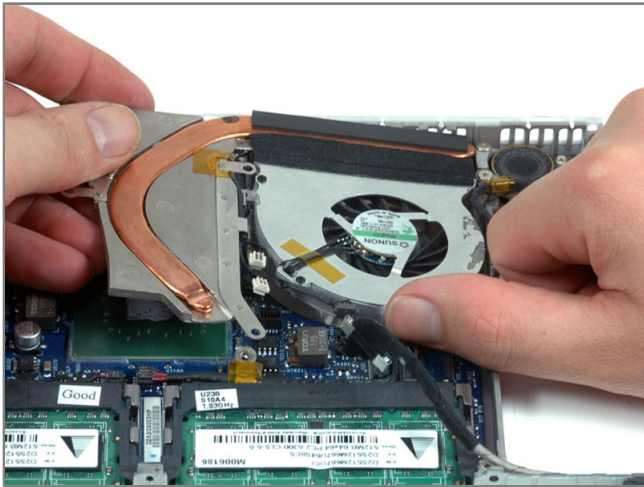
- Disconnect the two newly-revealed temperature sensor connectors and the fan connector from the logic board.





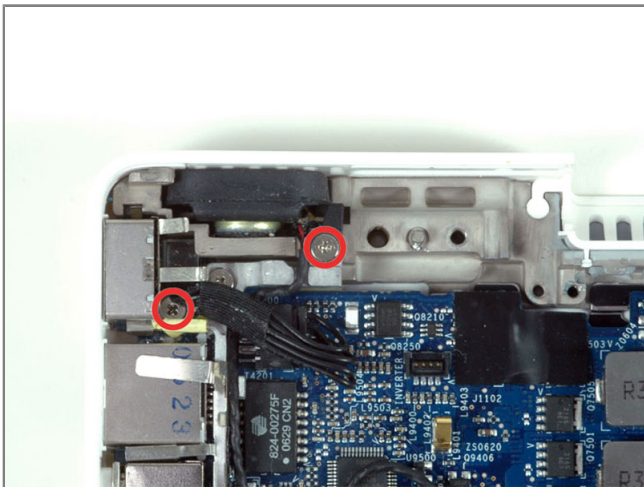
## Step 37

- Remove the following 6 screws:
  - One 3 mm Phillips on the right side of the fan.
  - One 6 mm Phillips on the left side of the fan.
  - Four 9 mm Phillips securing the heat sink to the lower case.



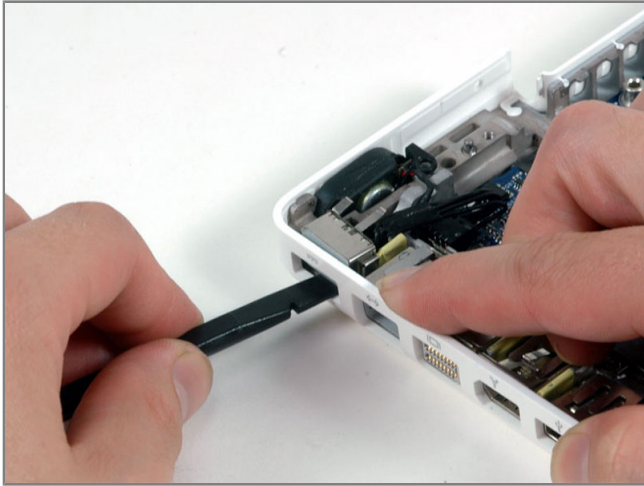
## Step 38

- Hold the heat sink with one hand and the fan with your other hand, and lift the heat sink and fan assembly out of the computer. The fan is attached to the heat sink only with a strip of black felt tape, so be sure to remove both parts as a unit
- If you need to mount the heat sink back into the laptop, we have a [thermal paste guide](#) that makes replacing the thermal compound easy.



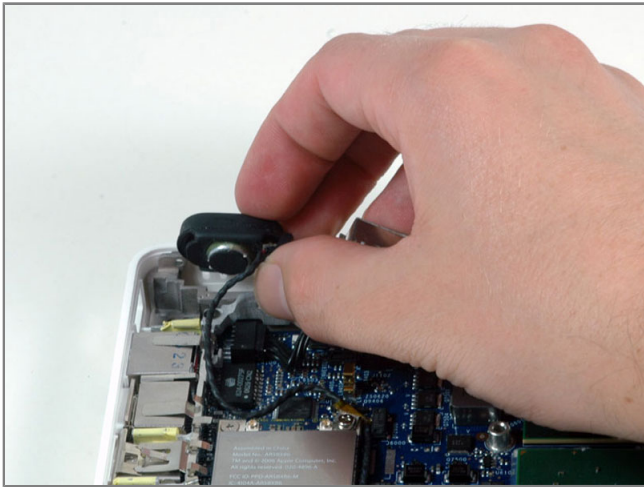
## Step 39

- Remove the two Phillips screws securing the MagSafe board and the left speaker to the lower case.



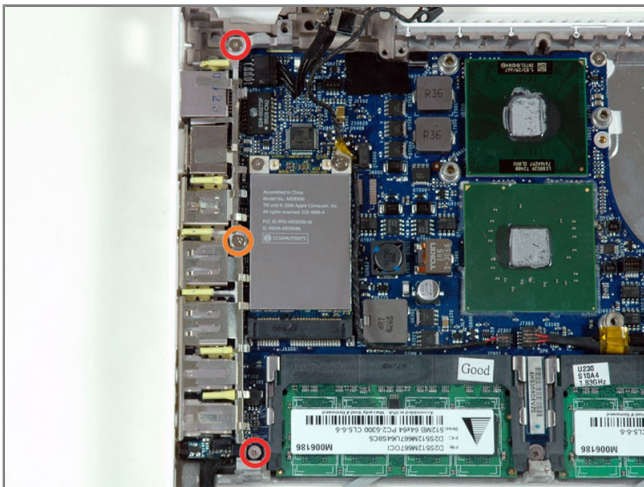
### Step 40

- Use a spudger to rotate the MagSafe board up and out of its housing. It may be helpful to pull the lower case out slightly to provide additional clearance.



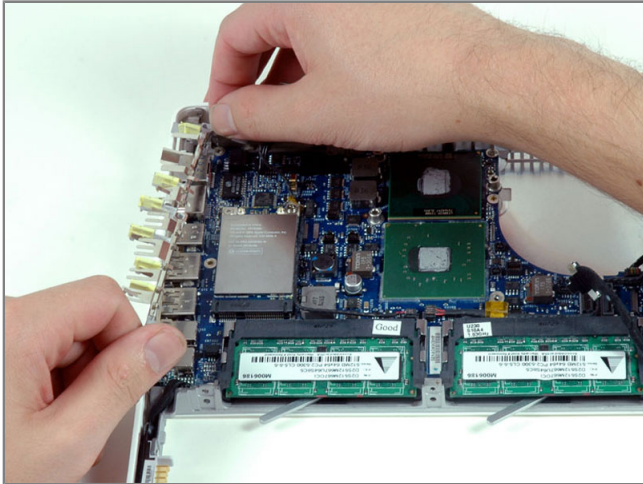
### Step 41

- Lift the left speaker out of its housing and set it to the side.



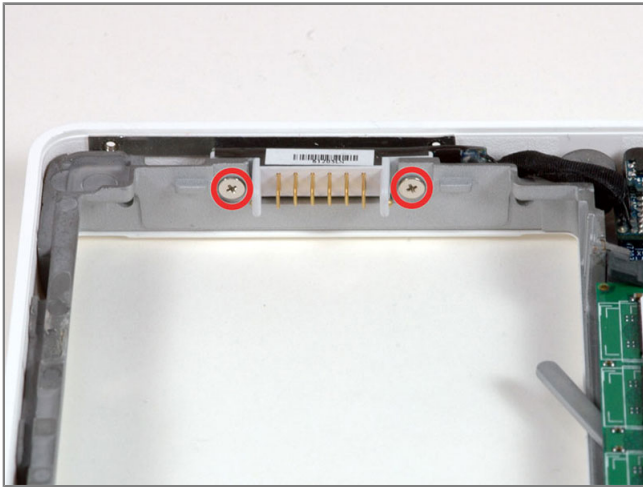
### Step 42

- Remove the following 3 screws:
  - Two 7.5 mm Phillips from either end of the left I/O frame.
  - One 9 mm Phillips from the middle of the left I/O frame.
- Remove the small black plastic spacer at the bottom of the left I/O frame.



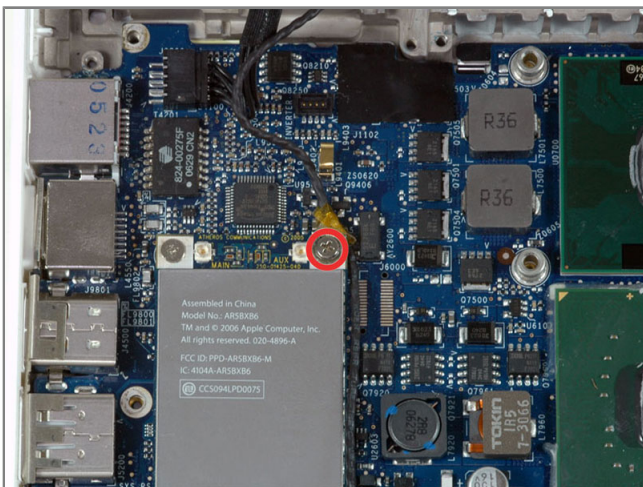
### Step 43

- Lift the left I/O frame up and out of the computer. Pay attention to the thin metal EMI fingers, as they may catch as you remove the left I/O frame.



### Step 44

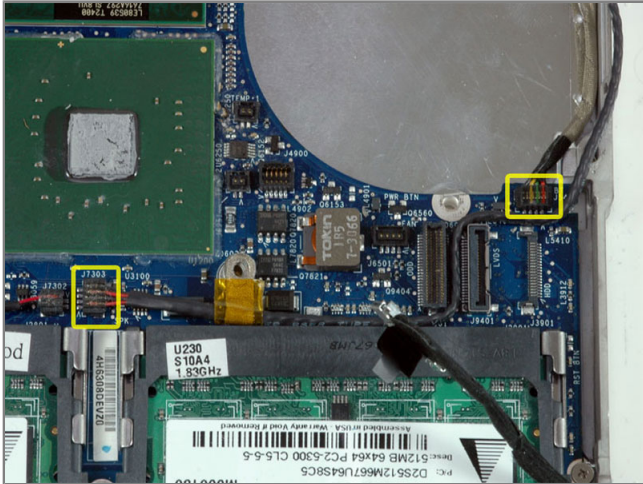
- Remove the two Phillips screws attaching the battery connector to the lower case.



### Step 45

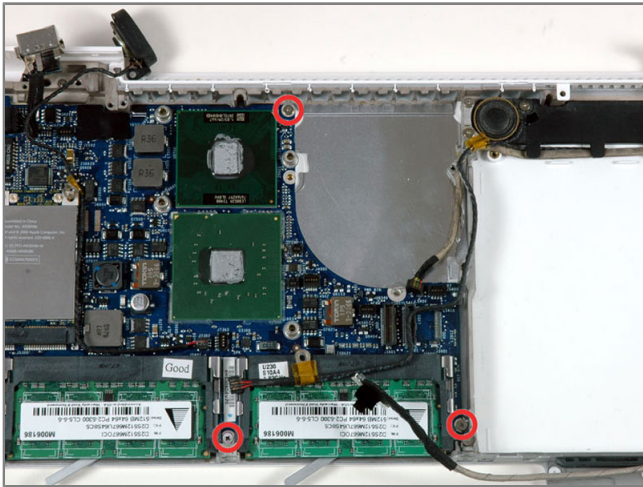
- Remove the single Phillips screw in the upper right corner of the Airport card.





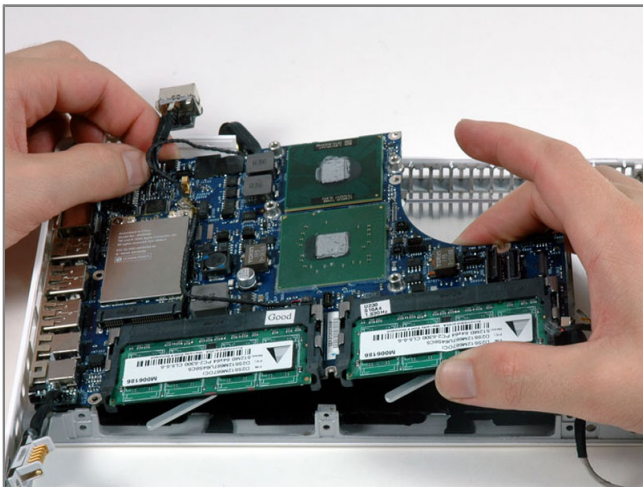
### Step 46

- Use a spudger to disconnect the right speaker connector and Bluetooth connector from the logic board.



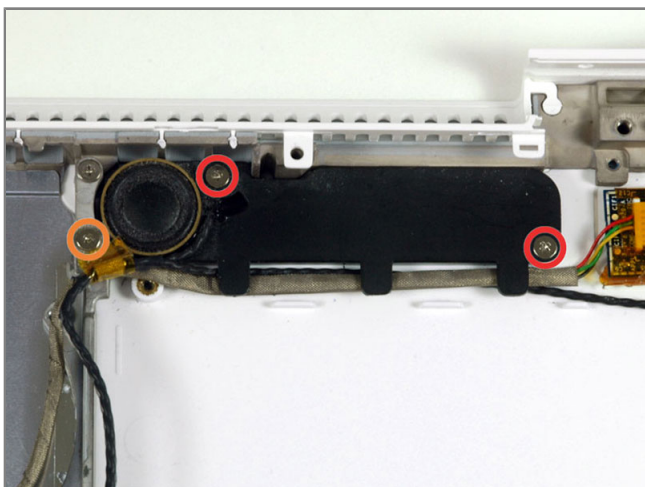
### Step 47

- Remove the three Phillips screws securing the logic board to the lower case.



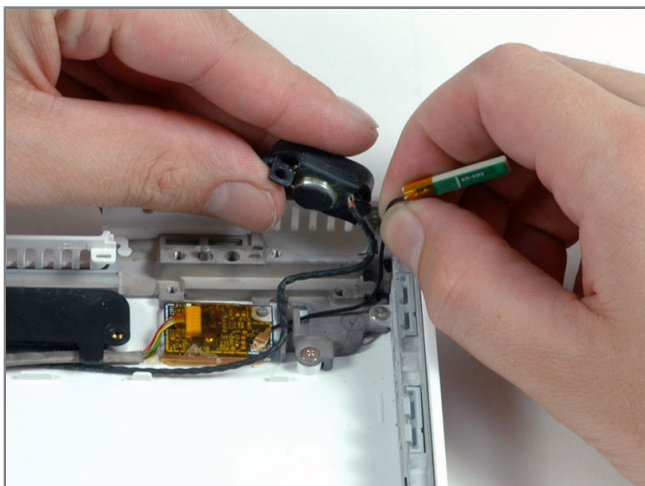
### Step 48

- Lift the logic board up from the right side, and slide it up and out of the computer. Be careful that the right speaker, MagSafe board, and battery connector don't catch on the lower case.



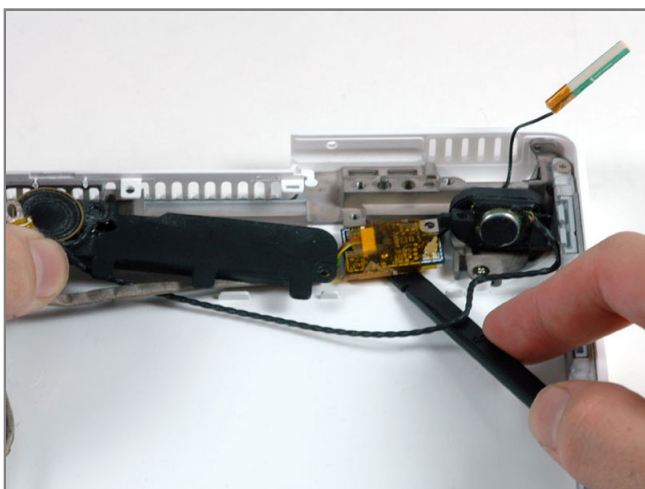
### Step 49

- Remove the following 3 screws:
  - Two 3 mm Phillips securing the subwoofer to the lower case.
  - One 7.5 mm Phillips securing the loop in the right speaker cable to the metal frame.



### Step 50

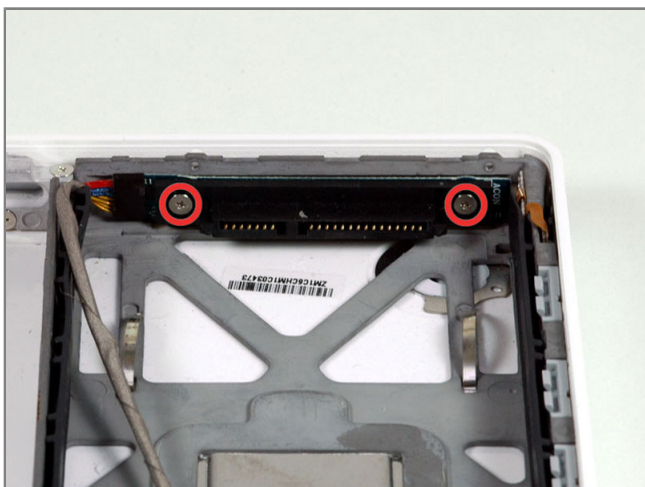
- Deroute the right speaker and Bluetooth antenna cables from their slots in the lower case.



### Step 51

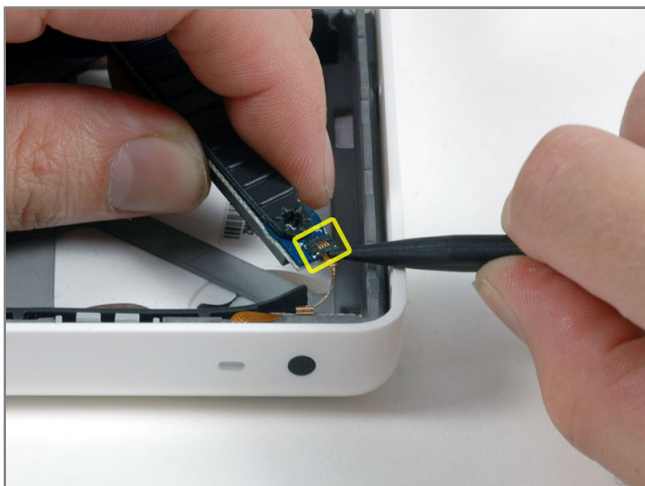
- Pry the Bluetooth board up from the lower case.
- Lift the subwoofer, right speaker, Bluetooth board, and attached cables out of the computer.





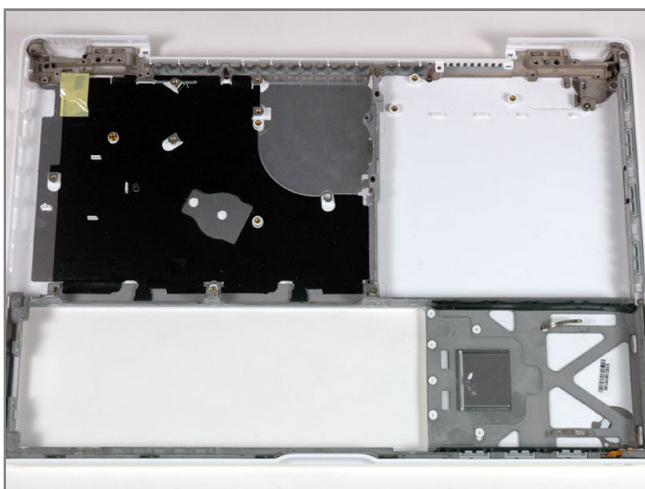
### Step 52

- Remove the two Phillips screws securing the hard drive connector to the lower case.



### Step 53

- Carefully lift the hard drive connector out of the case slightly, and turn it over to reveal the IR sensor connector beneath. Use a spudger to flip up the tiny bar holding the cable in place.
- Slide the orange IR sensor cable out of its connector, and lift the hard drive connector out of the computer.



### Step 54

- Lower case remains.

To reassemble your device, follow these instructions in reverse order.

This document was last generated on Dec 14, 2010.